

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) Method for operating a switching node ~~(145, 155)~~ of a communications network, comprising the steps of  
receiving a communication service request,  
processing the requested communications service,  
~~characterized by~~

determining an operation mode of the switching node, wherein the determined operation mode indicates whether the switching node is operatively for the processing of the requested communication service part of a layered architectural environment providing a user plane layer for user data and a control plane layer for signaling data, or part of a non-layered architectural environment not providing a split between a user plane and a control plane, and wherein the processing of the requested communications service comprises the operating of the switching node in the determined operation mode.

2. (Previously Presented) Method according to claim 1, wherein the communications service request is a call set-up request.

3. (Currently Amended) Method according to claim 1 ~~or 2~~, wherein the operation mode is determined according to at least one predetermined rule, which is set-up according to available network capabilities.

4. (Currently Amended) Method according to claim 1, ~~2 or 3~~, wherein a plurality of incoming routes from an access network to the switching node are provided, at least one predetermined rule comprises an assignment of a dedicated incoming route

to an operation mode of the switching node, and wherein the step of determining the operation mode comprises a determination of an incoming route of the communication service request and a comparison of the determined incoming route against at least one predetermined rule.

5. (Currently Amended) Method according to claim 1 ~~any preceding claim~~, wherein at least one predetermined rule comprises an assignment of a dedicated access technology to an operation mode, said dedicated access technology provided by an access network for serving a subscriber terminal of a communication system comprising the switching node, and wherein the step of determining the operation mode comprises the determination of the access technology used by the subscriber terminal and a comparison of the determined access technology against at least one predetermined rule.

6. (Currently Amended) Method according to claim 1 ~~any of the preceding claims~~, wherein the communication service request comprises an identifier of a communications service terminating party, at least one predetermined rule comprises an assignment of the identifier to a dedicated operation mode, and wherein the step of determining the operation mode comprises a determination of the identifier and a comparison of the determined identifier against at least one predetermined rule.

7. (Currently Amended) Method according to claim 1 ~~any of the preceding claims~~, wherein at least one predetermined rule indicates by means of a statistical distribution factor a distribution, for how many received communications service requests the switching node shall operate as a switching node of the layered architectural environment or as a switching node of the non-layered architectural environment, and wherein the determined operation mode depends on the statistical distribution factor.

8. (Currently Amended) Method according to claim 1 ~~any of the preceding claims~~, wherein the determination of the operation mode comprises a determination of a

current load level of the switching node in at least one operation mode, and wherein the determined operation mode for the processing of the requested communications service depends on the determined load level.

9. (Currently Amended) Method according to claim 1 ~~any of the claims 1, 2, 3, 7 or 8~~, wherein the communication service request requests a subscriber terminal terminating communications service, wherein at least one predetermined rule comprises an assignment of an access technology available to the subscriber terminal to a dedicated operation mode, and wherein the step of determining the operation mode comprises the determination of the access technology available to the terminating subscriber terminal, and the determined operation mode depends on the determined access technology.

10. (Currently Amended) Method according to claim 1 ~~any of the preceding claims~~, wherein the switching node processes the requested communications service as a MSC/VLR, if the determined operation mode indicates that the switching node is part of the non-layered architectural environment.

11. (Currently Amended) Method according to claim 1 ~~any of the claims 1 to 9~~, wherein the switching node processes the requested communications service as a MSC-Server, if the determined operation mode indicates that the switching node is part of the layered architectural environment.

12. (Currently Amended) Method according to claim 1 ~~any of the preceding claims~~, wherein the determination of the operation mode comprises a determination of at least one of a group of an origin of the communications service request and a destination of the communications service request, and wherein the determined operation mode depends on the at least one determined member of the group.

13. (Currently Amended) Method according to claim 1 ~~any preceding claim~~, wherein the switching node is determined operatively to process the requested

communication service as part of the non-layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is local to the switching node, and a destination indicated by the communications service request is local to the switching node.

14. (Currently Amended) Method according to claim 1 ~~any preceding claims~~, wherein the switching node is determined operatively to process the requested communication service as part of the layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is remote to the switching node, and a destination indicated by the communications service request is remote to the switching node.

15. (Previously Presented) Method according to claim 14, wherein the switching node applies local switching, if an origin of the communications service request, in particular an originating radio network node, is local to the destination indicated by the communications service request.

16. (Currently Amended) Method according to claim 1 ~~any preceding claims~~, wherein the switching node is determined operatively to process the requested communication service as part of the layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is remote to the switching node, and a destination indicated by the communications service request is local to the switching node.

17. (Currently Amended) Method according to claim 1 ~~any preceding claims~~, wherein the switching node is determined operatively to process the requested communication service as part of the layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is local to the switching node, and a destination indicated by the communications service request is remote to the switching node.

18. (Canceled).

19. (Currently Amended) Network node, in particular a combined MSC/VLR and MSC-Server, comprising

- an access network interface ~~(200)~~ for the user plane,
- an access network interface ~~(230)~~ for the control plane,
- a core network interface ~~(220)~~ for the user plane,
- a core network interface ~~(250)~~ for the control plane,
- a media gateway interface ~~(260)~~,

- a media gateway operation unit ~~(240)~~ connected to the user plane interfaces ~~(200, 220)~~ adapted to provide media gateway functions,

- a MSC-Server operation unit ~~(240)~~ connected to the control plane interfaces ~~(230, 250)~~ and to the media gateway interface ~~(260)~~, the MSC-Server operation unit ~~(240)~~ adapted to provide MSC-server functionality,

- a selection unit ~~(280)~~ adapted to determine for a communication service request received via any control plane interface ~~(230, 250)~~ according to at least one predetermined rule an operation mode for a processing of the requested communication service, wherein the determined operation mode indicates whether the network node is operatively for the processing of the requested communication service part of a layered architectural environment providing a user plane layer for user data and a control plane layer for signaling data, or operatively part of a non-layered architectural environment not providing a split between a user plane and a control plane~~[[,]]~~ and a processor ~~(270)~~ connected to the interfaces and units of the switching node, said processor ~~(270)~~ being adapted to process a requested communications service in accordance with a determined operation mode of the network node.

20. (Currently Amended) Network node according to claim 19, comprising means for storing, in particular a lookup table, ~~[[of]]~~ network node identifiers and related indications, indicating whether the identified network nodes are local or remote to the network node.

21. (Canceled)

22. (Currently Amended) Communications system comprising:  
a layered architectural environment, in which a user plane layer is provided for user data; and  
a control plane layer is provided for signalling data;[[,]] and  
a non-layered architectural environment, which does not provide a split between the user plane and the control plane, wherein a switching node, in particular a combined MSC/VLR-MSC Server, provides processing capabilities for the processing of communications services both within the layered and the non-layered architectural environment, and wherein at least one further network nodes served by said switching node is remote to said switching node.

23- 24. (Canceled)

25. (New) A computer program product within a computer usable medium, comprising  
instructions within the computer usable medium for receiving a communication service request,  
instructions within the computer usable medium for processing the requested communications service,  
instructions within the computer usable medium for determining an operation mode of the switching node, wherein the determined operation mode indicates whether the switching node is operatively for the processing of the requested communication service part of a layered architectural environment providing a user plane layer for user data and a control plane layer for signaling data, or part of a non-layered architectural environment not providing a split between a user plane and a control plane, and wherein the processing of the requested communications service comprises the operating of the switching node in the determined operation mode.

26. (New) The computer program product according to claim 25, wherein the communications service request is a call set-up request.

27. (New) The computer program product according to claim 25, wherein the operation mode is determined according to at least one predetermined rule, which is set-up according to available network capabilities.

28. (New) The computer program product according to claim 25, wherein a plurality of incoming routes from an access network to the switching node are provided, at least one predetermined rule comprises an assignment of a dedicated incoming route to an operation mode of the switching node, and wherein the instructions for determining the operation mode comprises a determination of an incoming route of the communication service request and a comparison of the determined incoming route against at least one predetermined rule.

29. (New) The computer program product according to claim 25, wherein at least one predetermined rule comprises an assignment of a dedicated access technology to an operation mode, said dedicated access technology provided by an access network for serving a subscriber terminal of a communication system comprising the switching node, and wherein the step of determining the operation mode comprises the determination of the access technology used by the subscriber terminal and a comparison of the determined access technology against at least one predetermined rule.

30. (New) The computer program product according to claim 25, wherein the communication service request comprises an identifier of a communications service terminating party, at least one predetermined rule comprises an assignment of the identifier to a dedicated operation mode, and wherein the instructions for determining the operation mode comprises a determination of the identifier and a comparison of the determined identifier against at least one predetermined rule.

31. (New) The computer program product according to claim 25, wherein at least one predetermined rule indicates by means of a statistical distribution factor a distribution, for how many received communications service requests the switching node shall operate as a switching node of the layered architectural environment or as a switching node of the non-layered architectural environment, and wherein the determined operation mode depends on the statistical distribution factor.

32. (New) The computer program product according to claim 25, wherein the instructions for determining the operation mode comprises a determination of a current load level of the switching node in at least one operation mode, and wherein the determined operation mode for the processing of the requested communications service depends on the determined load level.

33. (New) The computer program product according to claim 25, wherein the communication service request requests a subscriber terminal terminating communications service, wherein at least one predetermined rule comprises an assignment of an access technology available to the subscriber terminal to a dedicated operation mode, and wherein the instructions for determining the operation mode comprises the determination of the access technology available to the terminating subscriber terminal, and the determined operation mode depends on the determined access technology.

34. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium further comprise instructions to the switching node for processing the requested communications service as a MSC/VLR, if the determined operation mode indicates that the switching node is part of the non-layered architectural environment.

35. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium further comprise instructions to the switching node for processing the requested communications service as a MSC-Server, if the



determined operation mode indicates that the switching node is part of the layered architectural environment.

36. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium for determining the operation mode comprises instructions for determining at least one of a group of an origin of the communications service request and a destination of the communications service request, and wherein the determined operation mode depends on the at least one determined member of the group.

37. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium further comprise instructions to the switching node for processing the requested communication service as part of the non-layered architectural environment if an origin of the communications service request, in particular an originating radio network node, is local to the switching node, and a destination indicated by the communications service request is local to the switching node.

38. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium further comprise instructions to the switching node for processing the requested communication service as part of the layered architectural environment if an origin of the communications service request, in particular an originating radio network node, is remote to the switching node, and a destination indicated by the communications service request is remote to the switching node.

39. (New) The computer program product according to claim 38, wherein instructions within the computer usable medium further comprise instructions to the switching node for applying local switching if an origin of the communications service request, in particular an originating radio network node, is local to the destination indicated by the communications service request.

40. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium further comprise instructions to the switching node for processing the requested communication service as part of the layered architectural environment if an origin of the communications service request, in particular an originating radio network node, is remote to the switching node, and a destination indicated by the communications service request is local to the switching node.

41. (New) The computer program product according to claim 25, wherein instructions within the computer usable medium further comprise instructions to the switching node for processing the requested communication service as part of the layered architectural environment if an origin of the communications service request, in particular an originating radio network node, is local to the switching node, and a destination indicated by the communications service request is remote to the switching node.